Application Number 09/900,514
Responsive to Office Action mailed February 8, 2005

REMARKS

This amendment is responsive to the Office Action dated February 8, 2005. Applicants have amended claims 1, 15, 22, 25, 28 and 36-38. Claims 1-38 remain pending.

Amendments to the Specification

Applicants have amended the specification to include the patent number of the U.S. Patent referred to on page 6, paragraph 2.

Claim Rejection Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-3, 5 & 6 under 35 U.S.C. 102(b) as being anticipated by Hartmann et al. (USPN. 5,905,873). In addition, the Examiner rejected claims 1-3, 5-14 & 25-38 under 35 U.S.C. 102(b) as being anticipated by Dai et al. (US 6,658,016). Further, the Examiner rejected claims 15-24 under 35 U.S.C. 102(e) as being anticipated by Carlson (USPN 6,728,206).

Applicants have amended independent claims 1, 36 to include a bandwidth allocation circuit that calculates a weighted average bandwidth for each of the priority levels and rejects packet data having a first priority level in said plurality of priority levels when the weighted average bandwidth for at least two of the priority levels exceeds a predetermined value.

Applicants have amended independent claims 15, 22, 37 to require a bandwidth allocation circuit that calculates a weighted average bandwidth for each of the priority levels and rejects packet data having a first priority level in said plurality of priority levels when the weighted average bandwidth for a different one of the priority levels exceeds a predetermined value.

Applicants have amended independent claims 25 and 38 to require a sink port that calculates a weighted average bandwidth for each of the priority levels and rejects packet data having a first priority level in said plurality of priority levels when the weighted average bandwidth for a different one of the priority levels exceeds a predetermined value.

No new matter has been added by the claim amendments. Support can be found throughout the present application, including pages 30-33.

Applicants respectfully traverse the rejection to the extent such rejection may be considered applicable to the amended claims. The cited references fail to disclose each and every

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feature of the claimed invention, as required by 35 U.S.C. 102, and provide no teaching that would have suggested the desirability of modification to include such features.

Hartmann et al.

Hartmann et al. describes a communication system in which a plurality of protocol processors are coupled to the ring data bus. The protocol processors convert differing communication protocols or differing packet formats to and from a common generic packet format. Each of the protocol converters are coupled to a single-sided cross-bar switch to transmit/receive data to/from other protocol converters.

Hartmann et al. describes the communication system as including arbitration and control logic 572 coupled to the crossbar switch 570. The arbitration and control logic 572 is programmable to establish and remove connection paths within the switch 570. The control logic 572 is programmable to dynamically configure the crossbar switch 570 during operation to maximize interconnect bandwidth.[1]

Hartmann et al. do not describe receiving data packets for a plurality of priority levels and calculating a weighted average bandwidth for each of the priority levels, as required by Applicants' claims as amended. Moreover, Hartmann et al. fail to teach or suggest rejecting packet data having a first priority level when the weighted average bandwidth for at least two of the priority levels exceeds a predetermined value, as further required by Applicants' claims.

Dai et al.

Dai et al. describe a packet switching fabric having a data ring and a control ring. The data ring includes a plurality of data ring segments each coupling a corresponding adjacent pair of the devices together. Each of the devices is responsive to a channel resource patrol message received from an adjacent one of the devices. The patrol message carries channel bandwidth information including a plurality of data ring segment bandwidth parameters and a plurality of memory unit link bandwidth parameters. Each of the ring segment bandwidth parameters indicates an amount of bandwidth currently available at a corresponding one of the data ring

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[1] Col. 9, ll. 13-34.

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segments. Each of the memory unit link bandwidth parameters indicates of an amount of bandwidth currently available at a corresponding one of the memory unit links. [2]

Dai et al. do not describe receiving data packets for a plurality of priority levels and calculating a weighted average bandwidth for each of the priority levels, as required by Applicants' claims as amended. Moreover, Dai et al. fail to teach or suggest rejecting packet data having a first priority level in said plurality of priority levels when the weighted average bandwidth for at least two of the priority levels exceeds a predetermined value, as further required by Applicants' claims.

Carlson

Carlson describes a crossbar bus network of nodes coupled to a crossbar switch circuit that operates as a communications hub routing messages simultaneously to and from the nodes over multiple links. The crossbar switch circuit includes a dedicated communications bus ring adapted to transmit data such as programmed input/output (PIO) messages between components of said crossbar switch circuit. [3]

Carlson does not describe receiving data packets for a plurality of priority levels and calculating a weighted average bandwidth for each of the priority levels, as required by Applicants' claims as amended. Moreover, Carlson fails to teach or suggest rejecting packet data having a first priority level in said plurality of priority levels when the weighted average bandwidth for at least two of the priority levels exceeds a predetermined value, as further required by Applicants' claims.

For at least the reasons set forth above, the prior art fails to disclose each and every limitation set forth in claims 1-3 and 5-38, as required under 35 U.S.C. 102. Withdrawal of the rejection is requested.

Claim Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Dai et al. Applicants respectfully traverse the rejection to the extent such rejections may be considered applicable to the claims as amended. As described above, Dai et al.

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[2] Summary.
[3] Abstract.

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fail to disclose or suggest the inventions defined by Applicants' independent claim 1, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention. For at least this reason, claim 4 is allowable over Dai et al.

Further, in rejecting claim 4, the Examiner correctly recognized that Dai et al. fails to describe an apparatus having three data rings coupling a set of input ports to sink ports. Nevertheless, the Examiner rejected claim 4 concluding that it would have been obvious to one skilled in the art to include additional data rings "to provide additional bandwidth or redundant rings."

The Court of Appeals for the Federal Circuit has recently addressed the evidentiary standard required to uphold an obviousness rejection. The Federal Circuit made clear that the rejection must be based upon substantial evidence in the evidentiary record and not subjective musings or conjecture by the Examiner.[4] Deficiencies in the evidentiary record cannot be cured by general conclusions such as "general knowledge" or "common sense."[5] Accordingly, the Examiner cannot rely on unsupported, conclusory statements to close holes in the evidentiary record.[6] Unless the Examiner can establish an evidentiary record based on concrete prior art references that establish that it would have been obvious to a person with ordinary skill in the art to utilize three data rings, Applicants' dependent claim 4 should be allowed.

For at least these reasons, the Examiner has failed to establish a prima facie case for non-patentability of Applicants' claim 4 under 35 U.S.C. 103(a). Withdrawal of this rejection is requested.

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[4] In re Lee, 61 USPQ2d 1430, (CAFC 2002).
[5] Id.
[6] Id.

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CONCLUSION

All claims in this application are in condition for allowance. Applicants respectfully request reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

Date: By:

_____May 6, 2005_____   _____Kent J. Sieffert_____
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